AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ~~Method~~ method for dividing ~~the~~ transmission bandwidth into subchannels in modems based on a multicarrier modulation technique, in which method the transmission bandwidth is divided into at least three subchannels ~~(2)~~ when both transmission directions are taken into account, characterized in that the bandwidth of said subchannels ~~(2)~~ at frequency ranges ~~(5)~~ affected at ~~the~~ a highest probability by RF interference emissions at frequencies ~~(4)~~ not known *a priori* is set narrower than the bandwidth of other subchannels ~~(2)~~ and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

2. (Currently Amended) The ~~Method~~ method according to claim 1, characterized in that the bandwidth of said subchannels ~~(2)~~ placed in ~~the~~ a frequency range of 90 kHz - 3.6 MHz (5) is set at least 30% narrower than the bandwidth of other subchannels and the number of said narrower-bandwidth subchannels is not set

smaller than two when both transmission directions are taken into account.

3. (Currently Amended) The ~~Method~~ method according to claim 1, characterized in that said method anticipates RF interference occurring at unknown frequencies by assigning ~~the~~ equalizers and/or, respectively, ~~the~~ adaptive filters designed only for attenuating RF interference, having ~~the~~ a longest temporal length by ~~the~~ a number of ~~their~~ tap coefficients to serve ~~those~~ subchannels ~~(2)~~ that are placed on the frequency bands ~~(5)~~ where radio broadcast activity is highest and the frequency spectrum is most densely populated by ~~the~~ spot frequencies of radio stations.

4. (Currently Amended) The ~~Method~~ method according to claim 3, characterized in that the number of tap coefficients said equalizers and/or, respectively, said adaptive filters designed only for attenuating RF interference, assigned to said subchannels ~~(2)~~ placed on ~~said~~ a frequency range of 90 kHz - 3.6 MHz ~~(5)~~ is set larger than ~~the~~ a number of corresponding tap coefficients associated with subchannels placed at other points of the frequency spectrum.

5. (Currently Amended) The ~~Method~~ method according to claim 3 ~~or~~ 4, characterized in that ~~the~~ an allocation of available computing capacity between the different subchannels is arranged ~~modifiable case by case~~ so that the numbers of tap coefficients can be altered.

6. (Currently Amended) The ~~Method~~ method according to claim 3 ~~or~~ 4, characterized in that ~~the system is provided with~~ a mechanism is provided capable of changing, during ~~the~~ operation of ~~the~~ a modem, ~~the~~ an allocation of the available computing capacity between the different subchannels by modifying said assigned number of tap coefficients in order to optimize ~~the~~ quality and/or speed of data transmission.

7. (Currently Amended) The ~~Method~~ method according to claim 6, characterized in that ~~the~~ a criterion for optimization can be selected to be ~~the~~ a ratio of detection error rate to ~~the~~ spacing between adjacent detection levels.

8. (Currently Amended) A ~~Multicarrier~~ multicarrier communication system in which ~~the~~ transmission bandwidth is divided into at least three subchannels when both transmission directions are taken into account, characterized in that the bandwidth of said

subchannels ~~(2)~~ at frequency ranges ~~(5)~~ affected at the highest probability by RF interference emissions at frequencies ~~(4)~~ not known *a priori* is set narrower than the bandwidth of other subchannels ~~(2)~~ and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

9. (Currently Amended) The ~~System~~ system according to claim 8, characterized in that the bandwidth of said subchannels ~~(2)~~ placed on ~~the~~ a frequency range of 90kHz - 3.6 MHz ~~(5)~~ is set at least 30% narrower than the bandwidth of other subchannels and the number of said narrower-bandwidth subchannels is not set smaller than two when both transmission directions are taken into account.

10. (Currently Amended) The ~~System~~ system according to claim 8, characterized in that said system anticipates RF interference occurring at random frequencies by assigning ~~the~~ equalizers and/or, respectively, ~~the~~ adaptive filters designed only for attenuating RF interference, having ~~the~~ a longest temporal length by ~~the~~ a number of their tap coefficients to serve ~~those~~ subchannels ~~(2)~~ that are placed on the frequency bands ~~(5)~~ where radio broadcast activity is highest and the frequency spectrum

is most densely populated by ~~the~~ spot frequencies of radio stations.

11. (Currently Amended) The ~~System~~ system according to claim 10, characterized in that ~~the~~ a number of tap coefficients of said equalizers and/or, respectively, said adaptive filters designed only for attenuating RF interference, assigned to said subchannels ~~(2)~~ placed on ~~said~~ a frequency range of 90 kHz - 3.6 MHz ~~(5)~~ is set larger than ~~the~~ a number of corresponding tap coefficients associated with subchannels placed at other points of the frequency spectrum.

12. (Currently Amended) The ~~System~~ system according to claim 10 ~~or 11~~, characterized in that ~~the~~ an allocation of available computing capacity between the different subchannels is arranged ~~modifiable case by case~~ so that the assigned numbers of tap coefficients can be altered.

13. (Currently Amended) The ~~System~~ system according to claim 10, comprising: ~~or 11, characterized in that the system is provided with~~

a mechanism capable of changing, during the operation of the modem, the allocation of the available computing capacity

between the different subchannels by modifying said number of tap coefficients in order to optimize ~~the~~ quality and/or speed of data transmission.

14. (Currently Amended) The ~~System~~ system according to claim 13, characterized in that ~~the~~ a criterion for optimization can be selected to be ~~the~~ a ratio of detection error rate to the distance between adjacent detection levels.